

# Gopher Tortoise

## *Gopherus polyphemus*



Gopher tortoises are dry land turtles. They are protected by federal law in the Alabama counties west of the Mobile and Tombigbee Rivers and in Mississippi and Louisiana. They were once a common resident of a variety of upland habitats. Now, the gopher tortoise has experienced an 80 percent decline in populations over the last century. Their numbers are expected to continue to drop as their habitat is developed or fragmented. Road mortality is a problem and human predation, although illegal, still takes a toll.

### Threats

Habitat destruction is the greatest threat to gopher tortoises. In west Mobile County, rapid residential expansion, along with industrial and commercial development pose a serious risk to the tortoises and has the makings of a potentially controversial situation. Gopher tortoises need large parcels of undeveloped land that is not fragmented by roads, buildings,

parking lots, and other structures related to growth. Such breaks in natural habitat limit food availability and burrow space for tortoises plus expose them to closer contact with humans and their vehicles. Road kill is one of the major causes of death for adult tortoises. And, although removing gopher tortoises from their property is against the law, they are so easy to catch that some people continue to harvest them for food or keep them as pets.

### Life History

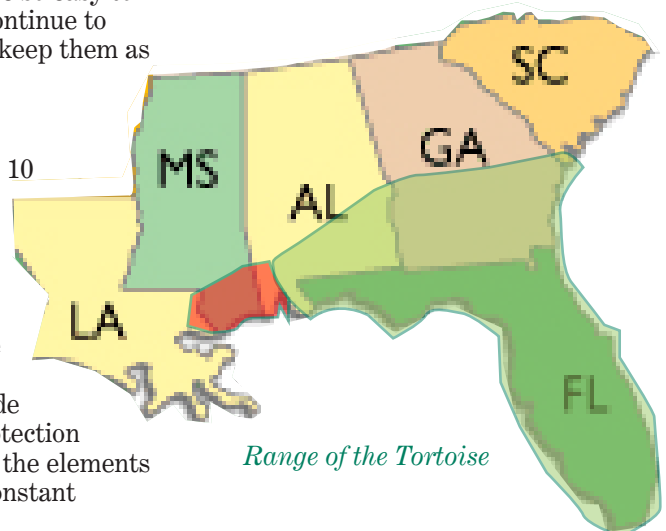
Gopher tortoises average 10 inches in length and nine pounds in weight. With their strong elephant-looking legs and feet, they are well adapted to dig burrows that average 15 feet long and six feet deep. The burrows provide gopher tortoises with protection from predators and from the elements by maintaining a fairly constant

environment inside. Each tortoise will dig and use several burrows, up to 35 for males and 17 for females. Although they are active all year, except during cold snaps, gopher tortoises spend most of their lives within the interior of their burrows.

Other wildlife benefit from gopher tortoise burrows too. Over 300 invertebrate species have been found using the burrows along with many vertebrates including frogs, other turtles and juvenile tortoises, snakes, small mammals and birds. Several of the “tenants” are also legally protected species adding to the burrows’ value to the ecosystem.

Gopher tortoises can live to be about 60 years old in the wild and 100 in captivity. They are slow to reach sexual maturity at an age of 10 to 20 years old and they have a low reproductive rate. Only about three percent of the young tortoises survive.

Primarily herbivorous creatures, gopher tortoises eat grasses, legumes, mushrooms, gopher apples, saw palmetto berries, and prickly pear cactus pads, fruits and flowers. They will occasionally feed on insects. Gopher tortoises spread seeds of many plants in their droppings filling another important role in the ecosystem.



*Range of the Tortoise*

The gopher tortoise is protected by federal law in the western part of its range, from the Tombigbee and Mobile Rivers in Alabama west to southeastern Louisiana on the lower Gulf Coastal Plain. The listed range of the gopher tortoise includes three counties in southeastern Alabama, 14 counties in southern Mississippi, and three parishes in Louisiana. Most gopher tortoise habitat is privately owned (70 percent), while about 20 percent is owned by the Forest Service, and 10 percent by other public agencies. The tortoise is listed as a candidate for federal protection in the eastern part of its range, from the Tombigbee and Mobile Rivers in Alabama east to the southern tip of South Carolina.

The decline of the gopher tortoise has been linked to the decline of the open; fire maintained longleaf pine forest and ecosystem. About 80 percent of the original habitat for the gopher tortoise within its listed range has been lost due to urbanization and agriculture. In remaining forests, management practices involving dense pine stands for pulpwood production, the silvicultural conversion from longleaf to other pines, and fire exclusion or infrequently prescribed fire have further reduced habitat for the species. These practices eliminate the open, sunny forest with a well developed groundcover of grasses and forbs needed by tortoises for burrowing, nesting, and feeding. Other threats and causes for decline include habitat fragmentation, fire ants, predation, and human-caused mortality as a result of roads and heavy equipment operations during forest site preparation and timber harvest.

### *Protecting the Tortoise*

Early in the 21<sup>st</sup> Century, the Alabama Field Office found an advocate for the tortoise and a partner for the Service in the Mobile Area Water and Sewer Board (MAWSS) by agreeing to start the first conservation bank for a listed species in the southeast. The bank was considered small at 225 acres but quickly became a big success and not taking long to reach its capacity for tortoises. Since that time, several government entities (Alabama Department of Transportation and the

South Alabama Utilities) have entered into conservation banking to mitigate for their impacts to the tortoise, in addition, the 1100-acre Chickasaway Conservation Bank, presently the only commercial conservation bank for the tortoise was started in 2010 in Greene County, Mississippi.

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